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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/596,142

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Luc Forget

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EXAMINER

GOFF II, JOHN L

ART UNIT

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1791

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/596,142	Applicant(s) FORGET ET AL.	
	Examiner John L. Goff	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/31/06, 8/2/06</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 14, 15, 19, and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Claim 14 recites the limitation "the intermediate layer" in line 3. There is insufficient antecedent basis for this limitation in the claim. Further, it is unclear what is required by the limitation. Is the intermediate layer the wear layer or is the layer of low density polyethylene the wear layer? If the intermediate layer is the wear layer then the additional low density ethylene layer is interposed between the backing layer and the wear layer. However, this interpretation makes what is required by claim 10 unclear. Claim 10 requires "melting the wear layer in order to ensure that it adheres with the backing" because this limitation requires melting the wear layer and adhering it with the backing the limitation appears to exclude an additional layer between the melted wear layer and the backing otherwise melting the wear layer would not adhere the wear layer with the backing rather it would adhere the wear layer with the layer of low density ethylene which layer of low density ethylene must then be melted to adhere with the backing. The claims do not require melting the layer of low density ethylene rather the claims require melting the wear layer. In view of the above, claim 14 is interpreted as requiring the wear layer

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is a layer of low density ethylene which layer is melted to adhere with the backing and which layer is interposed between the backing and an additional layer, i.e. an intermediate layer .

4. Claim 19 requires a method for manufacturing a multilayer product applying a double equipment according to claim 18, an apparatus claim. It is unclear what method steps are required by claim 19. Claim 19 should be amended to make clear specifically what steps are required.

5. Claim 20 requires the use of products obtained according to claim 10, a method claim, for making floor or wall coverings. Claim 20 appears to be a method of use claim. However, claim 20 depends from claim 10 a method of making claim. Thus, it is unclear how claim 20 further limits claim 10. Claim 20 should be amended to make clear specifically if the claim is a method of making claim or a method of using claim and to make clear specifically what method steps are required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 10, 11, and 18-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Remmert (U.S. Patent 3,829,343).

Remmert discloses a method and equipment for making a multilayer product comprising providing a polymeric backing and a backing feeder device (e.g. the roll the backing is wound on

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or the roll (1)), providing a thermoplastic polymer wear layer and a wear layer feeding device (e.g. the roll the wear layer is wound on), conveying the backing via the feeder device into a backing preheating station to preheat the backing, applying the cold wear layer on the preheated backing via a device for putting the backing and the wear layer into contact (e.g. the roll (2)), conveying the backing and the wear layer through a heating oven via a conveyor device (e.g. the roll (3)), melting the wear layer in order to ensure that it adheres with the backing in the heating oven comprising one or more gas blowing nozzles wherein pressure is exerted on the backing and wear layer by means of the gas blowing nozzle, and cooling the obtained product in order to bring it to a temperature close to room temperature (e.g. by roll (4) or by simply removing the product from the equipment) (Column 5, lines 5-65).

Regarding claim 10, the limitations of “preferably at a temperature between 100 and 130°C” and “preferably at a temperature between 120 and 180°C” are only preferable and do not further limit the claim. Further, the preheating station and the heating oven as taught by Remmert heat to the melting temperature of polyethylene which is 120 to 130 °C (Column 4, lines 43-48 and Column 5, lines 5-11).

Regarding claim 11, the wear layer comprises one intermediate layer of polyethylene film.

Regarding claim 16, a polyurethane surface layer is applied to the wear layer (Column 5, lines 60-65).

Regarding claims 17 and 18, the second heater taught by Remmert comprises one or more gas blowing nozzles, and the roll 3 conveys the backing and wear layer under the nozzles. The nozzles and roll are inherently in a chamber, e.g. a room of some type or even the

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atmosphere, heated by the nozzles which chamber meets the usual definition of an oven whereby the roll 3 conveys the backing and wear layer through the oven.

Regarding claim 18, the limitations “the backing being conveyed via the feeder device into the preheating station in which it is preheated to a temperature between 100 and 130°C, and then the preheated backing being put into contact with the wear layer in the contacting device, the backing having been conveyed by the backing feeding device, the backing and the wear layer being then conveyed through the heating oven, inside which the wear-layer-and-backing assembly is heated to a temperature between 120 and 180°C and conveyed through the oven on the conveyor device, pressure being exerted during this conveyance on the backing-wear layer assembly by means of the gas blowing nozzle in order to melt together the wear layer and the backing.”, are directed to either the material worked upon, i.e. a backing or wear layer, or functional language, i.e. melting together the backing and the wear layer. Expressions relating the apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claim (MPEP 2115). The equipment taught by Remmert is capable of working upon the materials claimed, i.e. a backing and a wear layer. Further, a claim containing a “recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus” if the prior art apparatus teaches all the structural limitations of the claim (MPEP 2114). The equipment taught by Remmert includes all the structural limitations of the claim to form a device capable of performing the functional language, i.e. melting together the backing and the wear layer.

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Regarding claim 19, the equipment taught by Remmert is capable of being applied according to claim 18 to form a multilayer product.

Regarding claim 20, the product formed by the method of making taught by Remmert is for making floor or wall claddings (See Example 1).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Remmert in view of Hashimoto et al. (JP 5725315 and see also the abstract).

Remmert is described above in full detail. Remmert is silent as to the backing comprising an olefinic polymer, it being noted Remmert teaches the backing comprises polyurethane foam and the product is permeable. It was known in the art that the permeability of

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polyurethane foam is improved by including an olefinic polymer such as polyethylene as shown by Hashimoto (See abstract). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include in the backing of polyurethane foam taught by Remmert an olefinic polymer as shown by Hashimoto to improve the permeability of the product.

11. Claims 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Remmert in view of Lee et al. (WO 97/27259) or the admitted prior art (Applicants specification pages 6 and 7).

Remmert is described above in full detail. Remmert is silent as to the polyethylene wear layer used as a melt adhesive including metallocene. However, it was conventional in the art that polyethylenes used as a melt adhesive are formed using metallocene catalysts to form polyethylenes much more uniform and with superior processability as evidenced by Lee (Page 1, line 27 to Page 2, line 25). The admitted prior art further teaches the use of metallocene catalysts to form polyethylene was well known in the art (Page 6, line 31 to Page 7, line 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the polyethylene wear layer as taught by Remmert as including metallocene as such was well known in the art as evidenced by Lee or the admitted prior art for reasons such as forming a more uniform polyethylene with improved processability. Regarding the particular amount of metallocene, it would have been obvious to one of ordinary skill in the art at the time the invention was made to determine the particular amount of metallocene in the polyethylene taught by Remmert as modified by Lee or the admitted prior art as a function of achieving the desired uniformity, processability, etc. wherein one of ordinary skill would have readily expected the claimed broad range of more than 5 parts by weight for 100 parts by weight of polyethylene as

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the layer of polyethylene taught by Remmert as modified by Lee or the admitted prior art is consistent and in agreement with that claimed and taught by applicants as sufficient for bonding the wear layer with the backing.

Regarding claims 14 and 15, Remmert does not specifically teach the polyethylene wear layer is low density polyethylene, it being noted Remmert does teach the polyethylene wear layer is interposed between the backing and a textile layer, i.e. an intermediate layer. Lee evidences that it was conventional in the art that polyethylenes used as a melt adhesive are formed high density or low density polyethylene (Page 1, lines 22-26). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use as the polyethylene in Remmert any conventionally used such as high or low density polyethylene as shown by Lee only the expected results being achieved.

12. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Remmert in view of Hanoka (U.S. Patent 6,114,046).

Remmert is described above in full detail. Remmert is silent as to the polyethylene wear layer used as a melt adhesive including metallocene. However, Remmert is not limited to any particular polyethylene, and Hanoka evidences a known polyethylene sealant film for a variety of applications comprising a middle layer of metallocene polyethylene between two thin outer layers of ionomer wherein the film has superior bonding strength at low cost (Column 2, lines 30-36 and Column 3, lines 12-34 and Column 5, lines 7-22). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use as the polyethylene wear layer as taught by Remmert the polyethylene sealant film shown by Hanoka including metallocene and having superior bonding strength at low cost. Regarding the particular amount

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of metallocene, it would have been obvious to one of ordinary skill in the art at the time the invention was made to determine the particular amount of metallocene in the polyethylene taught by Remmert as modified by Hanaoka as a function of achieving the desired bond strength wherein one of ordinary skill would have readily expected the claimed broad range of more than 5 parts by weight for 100 parts by weight of polyethylene as the layer of polyethylene taught by Remmert as modified by Hanaoka is consistent and in agreement with that claimed and taught by applicants as sufficient for bonding the wear layer with the backing.

13. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Remmert and Hanoka as applied to claim 13 above, and further in view of Lee.

Remmert does not specifically teach the polyethylene wear layer is low density polyethylene, it being noted Remmert does teach the polyethylene wear layer is interposed between the backing and a textile layer, i.e. an intermediate layer, and Hanoka teaches the polyethylene and first ionomer layer interposed between the backing and a second ionomer layer, i.e. an intermediate layer. Lee evidences that it was conventional in the art that polyethylenes used as a melt adhesive are formed from high density or low density polyethylene. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use as the polyethylene in Remmert as modified by Hanoka any conventionally used such as high or low density polyethylene as shown by Lee only the expected results being achieved.

14. Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Remmert in view of Hanawa et al. (JP 05004248 and see also the abstract).

As noted above, the second heater taught by Remmert comprises one or more gas blowing nozzles, and the roll 3 conveys the backing and wear layer under the nozzles. The

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nozzles and roll are inherently in a chamber, e.g. a room of some type or even the atmosphere, heated by the nozzles which chamber meets the usual definition of an oven whereby the roll 3 conveys the backing and wear layer through the oven. In the event it is shown the chamber of Remmert is not necessarily an oven the following rejection would apply. It was extremely well known that a heating device such as one comprising one or more gas blowing nozzles is provided in a chamber, i.e. a heating oven, with the conveying device as evidenced by Hanawa (Figure and abstract). It would have been obvious to one of ordinary skill in the art at the time the invention was made to house the second heat and roll conveyor (3) taught by Remmert in a well known housing to form an oven as evidenced by to contain the heat from the one or more gas blowing nozzles.

Conclusion

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **John L. Goff** whose telephone number is **(571)272-1216**. The examiner can normally be reached on M-F (7:15 AM - 3:45 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John L. Goff/
Primary Examiner, Art Unit 1791